

Serial No.: 09/348,354
Docket No.: 4123.2US

IN THE CLAIMS:

A clean version of the entire set of pending claims is set forth below for clarity.

F₁
SUB H1)

2. (Five Times Amended) A recombinant vector derived from an adenovirus comprising at least one ITR and a packaging signal, the recombinant vector having a first insertion site for a nucleic acid sequence of interest, a second insertion site for functionally inserting a gene sequence encoding at least a part of a penton and/or hexon protein of a first adenovirus serotype, and a third insertion site for a gene sequence encoding a part of a fiber protein of a second adenovirus serotype, the second adenovirus serotype selected from the group consisting of serotypes 11, 14, 16, 21, 34, 35, and 50, a gene sequence encoding at least a part of a penton and/or hexon protein from the first adenovirus serotype inserted into the second insertion site, a gene sequence encoding the part of a fiber protein of the second adenovirus serotype inserted into the third insertion site, the gene sequence encoding the part of a fiber protein adapted to exhibit a desired tropism to a plurality of target cells in a host and fused to a tail region of a fiber of the adenovirus serotype from which the recombinant vector was derived at its N-terminus.

3. (Previously Amended) The recombinant vector of claim 2 wherein the recombinant vector comprises a plasmid.

F₂
SUB H2)

33. (Amended) A chimeric adenovirus comprising:
an adenoviral capsid derived from a first adenovirus serotype; and
a part of an adenoviral fiber derived from a second adenovirus serotype substituted for a corresponding part of a fiber of the capsid derived from the first adenovirus serotype, the second adenovirus serotype selected from the group consisting of serotypes 11, 14, 16, 21, 34, 35, and 50, wherein the part of the adenoviral fiber derived from the second adenovirus serotype is fused to a tail region of a fiber of the first adenovirus serotype at its N-terminus.

34. The chimeric adenovirus of claim 33 wherein the first adenovirus serotype is serotype 5.

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35. (Amended) A chimeric adenovirus comprising:
an adenoviral capsid derived from a first adenovirus serotype; and
a part of an adenoviral fiber derived from adenovirus serotype 35 substituted for a
corresponding part of a fiber of the capsid derived from the first adenovirus
serotype, the part of the adenoviral fiber derived from adenovirus serotype 35 fused
to a tail region of a fiber of the first adenovirus serotype at its N-terminus.

36. The chimeric adenovirus of claim 35 wherein the first adenovirus serotype
is serotype 5.

37. (Amended) A method for producing a chimeric adenoviral particle having a
capsid derived from a first adenovirus serotype exhibiting a desired tropism and
antigenicity determined by a part of a fiber of a second adenovirus serotype, the second
adenovirus serotype selected from the group consisting of serotypes 11, 14, 16, 21, 34, 35,
and 50, the method comprising:

providing a recombinant vector derived from the first adenovirus serotype
comprising at least one ITR, a packaging signal, an insertion site for a nucleic acid
sequence of interest, and an insertion site for a gene sequence encoding a functional part of
a fiber protein of the second adenovirus serotype;

inserting into the recombinant vector the gene sequence encoding the functional
part of the fiber protein of the second adenovirus serotype, wherein the functional part of
the fiber protein of the second adenovirus serotype is fused to a tail region of a fiber of the
first adenovirus serotype at its N-terminus;

transfecting said vector in a packaging cell; and
producing chimeric adenoviral particles.

38. The method according to claim 35 wherein the first adenovirus serotype is
serotype 5.

39. The method according to claim 35 wherein the recombinant vector
comprises a plasmid.

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40. (Amended)) A method for producing a chimeric adenoviral particle having a capsid derived from a first adenovirus serotype exhibiting a desired tropism and antigenicity determined by a part of a fiber derived from adenovirus serotype 35, the method comprising:

providing a recombinant vector derived from the first adenovirus serotype comprising at least one ITR, a packaging signal, an insertion site for a nucleic acid sequence of interest, and an insertion site for a gene sequence encoding a functional part of the fiber protein of adenovirus serotype 35;

inserting into the vector the gene sequence encoding the functional part of the fiber protein derived from adenovirus serotype 35, wherein the functional part of the fiber protein of the second adenovirus serotype is fused to a tail region of a fiber of the first adenovirus serotype at its N-terminus;

transfecting said vector in a packaging cell; and
producing chimeric viral particles.

41. The method according to claim 40 wherein the first adenovirus serotype is serotype 5.

42. The method according to claim 40 wherein the recombinant vector comprises a plasmid.

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43. (Amended) A recombinant vector derived from a first adenovirus serotype comprising:

at least one ITR;

a packaging signal;

a first insertion site for a nucleic acid sequence of interest;

a second insertion site for functionally inserting a gene sequence encoding a part of a fiber protein of a second adenovirus serotype, the second adenovirus serotype selected from the group consisting of serotypes 11, 14, 16, 21, 34, 35, and 50; and

a gene sequence encoding the part of the fiber protein of the second adenovirus serotype inserted in the second insertion site, the part of the fiber protein of the second adenovirus serotype exhibiting a desired tropism to a plurality of cells in a host and fused to a tail region of a fiber of the first adenovirus serotype at its N-terminus.

44. The recombinant vector of claim 43 wherein the recombinant vector comprises a plasmid.

45. The recombinant vector of claim 43 wherein the first adenovirus serotype is serotype 5.

46. (Amended) A recombinant vector derived from a first adenovirus serotype comprising:

at least one ITR;

a packaging signal;

a first insertion site for a nucleic acid sequence of interest;

a second insertion site for functionally inserting a gene sequence encoding a part of a fiber protein of adenovirus serotype 35; and

a gene sequence encoding the part of the fiber protein of adenovirus serotype 35 inserted in the second insertion site, the part of the fiber protein of adenovirus serotype 35 exhibiting a desired tropism to a plurality of cells in a host and fused to a tail region of a fiber of the first adenovirus serotype at its N-terminus.

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47. The recombinant vector of claim 46 wherein the recombinant vector comprises a plasmid.

48. The recombinant vector of claim 46 wherein the first adenovirus serotype is serotype 5.

*For
Case 5*